CLAIMS

1. An access method comprising the steps of:

requesting, by a first process, an open procedure of an I/O device or an I/O interface to an operating system;

allocating, by the operating system, a context identifier for indicating a request storing area of the first process, and further mapping a memory page corresponding to the context identifier as an accessing address to a pending register indicating that there is an unprocessed request;

writing, by the first process, contents of requests to the I/O device or the I/O interface into the request storing area;

notifying, by the operating system, the I/O device or the I/O interface that there is an unprocessed request by use of the accessing address for the pending register; and

reading, by any one of the I/O device or the I/O interface, the request of the first process based on the context identifier stored in the pending register.

2. The access method according to claim 1, wherein the operating system stores a physical address of the request storing area corresponding to each process into an embedded memory in the I/O device or the I/O interface.

3. The access method according to any one of claims 1 and 2, comprising the steps, performed by the I/O device or the I/O interface, of:

identifying that the pending register has been accessed;

obtaining the physical address of the request storing area of the process having accessed the pending register by referring to the embedded memory storing the physical address of the request storing area of each process based on the context identifier; and

reading out the contents of the request storing area, and of realizing the request contents.

4. The access method according to any one of claims 1 to 3,

wherein the physical address specifying the I/O device or the I/O interface includes a function select field indicating a position of the pending register and a context identifier field indicating the process, and

an address decoder stores the context identifier of the physical address in the pending register in the case where a fixed address indicating the position of the pending register is stored in the function select field of the physical address.

5. The access method according to any one of claims 1 to 4, wherein other data corresponding to the context identifier is stored in the pending register according to needs.

6. The access method according to any one of claims 1 to 5, wherein, in any one of the cases where the first process requests a close procedure of the I/O device or the I/O interface to the operating system and where the first process is ended, the operating system withdraws the address allocated to the first process, withdraws the context identifier for the I/O device or the I/O interface, and/or clears an entry of the physical address to the request area of the first process on the embedded memory.

7. A recording medium having an access-processing program,

wherein the access-processing program includes the steps of:

requesting, by a first process, an open procedure of an I/O device or an I/O interface to an operating system;

allocating, by the operating system, a context identifier for indicating a request storing area of the first process, and further

mapping a memory page corresponding to the context identifier as an accessing address to a pending register indicating that there is an unprocessed request;

writing, by the first process, contents of requests to the I/O device or the I/O interface into the request storing area;

notifying, by the operating system, the I/O device or the I/O interface that there is an unprocessed request by use of the accessing address for the pending register; and

reading, by the I/O device or the I/O interface, the request of the first process based on the context identifier stored in the pending register.